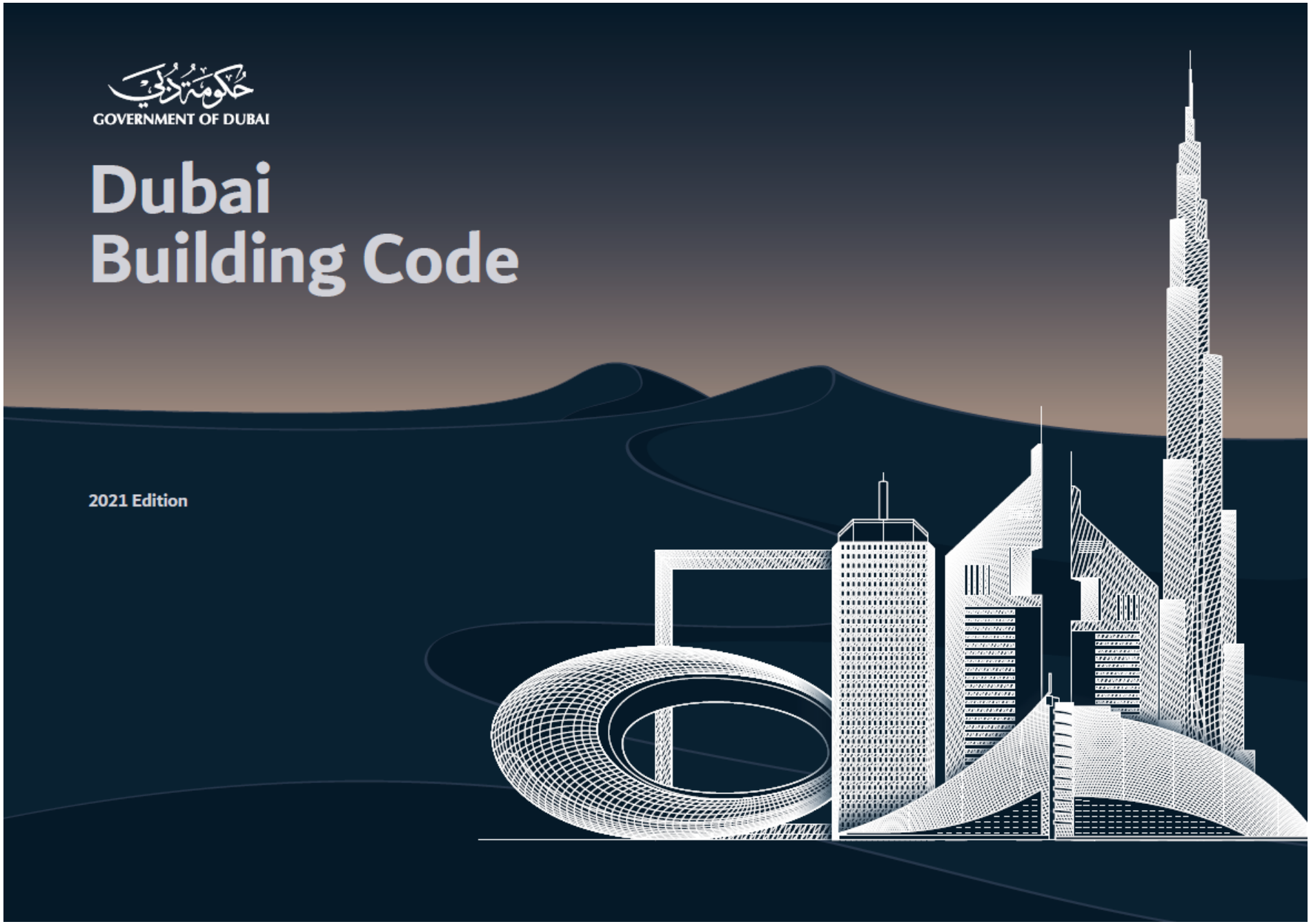
حكومة دبي
GOVERNMENT OF DUBAI

Dubai Building Code

2021 Edition



Objectives of Dubai Building Code

The objective of the Dubai Building Code (DBC) is to unify building design across Dubai, and to create a building code that is easy to use and clearly mandates the minimum requirements for:

a) the health, safety, welfare and convenience of people in and around buildings;

b) the health, safety, welfare and convenience of people who might be affected by buildings;

c) building design to reduce the impact on the surrounding environment; and

d) the sustainable development of buildings.

The regulations stipulated in the DBC are the minimum requirements for building design. Nothing in the DBC prevents a building design that achieves higher standards than the minimum set out in the DBC.

Structure of DBC and Code parts

Each Part of the DBC starts with a set of performance statements. These set out the broad outcomes that the completed building is expected to achieve.

Each Part has a section for essential references and further reading. The requirements of the DBC and the essential references form the prescriptive design requirements of the DBC and will be enforced by the Authority.

Each Part has a section for definitions. Common definitions are available in **Part A.**

Code Parts



Part A – General is essential reading for all users of the code.

There is an Arabic translation of DBC. The English version is the official version of the DBC and takes precedence over the Arabic translation. The Arabic translation is provided as an additional reference to assist consultants.

Verbal forms used in DBC are as follows:

May	The associated text is permitted
Shall	The associated text is mandatory
Should	The associated text is recommended

Scope and Application of DBC:

- DBC applies to new buildings and changes to existing buildings as described in Table A.1
- DBC applies to occupancies and use types described in Table A.2.

Part A – General



Relationship to Other Regulations

- The DBC incorporates, unifies and replaces the regulations related to building design published by DM, DDA, Trakhees and DSOA.
- Regulations related to building design by DEWA and IACAD are incorporated or cross-referenced by the DBC and regulations by SIRA are summarized and cross-referenced in **Part J.**
- The DBC follows the Federal regulations of TRA and the Ministry of Interior Civil Defence.
- The UAE Fire and Life Safety Code is cross-referenced throughout the DBC.
- DHA regulations along with the relevant Federal regulations, shall be followed for the design of all healthcare facilities.

Part A – General



Relationship to Other Regulations

- Regulations related to permitting, procedures, construction and design of non-building elements such as infrastructure, transportation systems, and the public realm remain, and can be obtained from, the relevant Authority.
- Planning development regulations published by Developers or Planning Authorities are not replaced by the DBC.
- The DBC relies on international codes and standards, mainly BS EN and American codes.

Part A – General

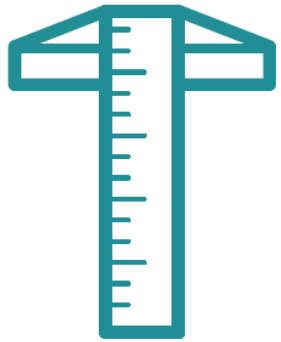


Adoption of the Code

Projects in design or construction that have a final approved design from the Authority do not need to conform to the DBC. Projects in design without a final approved design shall conform to the DBC.

The requirements of the DBC are based on regulations enforced prior to its publication and in many instances the DBC is less stringent.

Part B - Architecture



Buildings shall be designed according to the planning limitations and provisions required by the Authorities, as stipulated in development control regulations (DCR) and/or affection plans.

- Gross area and net area definitions standardized for design.
- Building height measurements and setback defined and explained.
- Gate level definitions and parking provisions and requirements standardized.
- Minimum space requirements defined.
- Courtyards defined and aligned with DCD.
- Maximum space height restrictions defined.
- Requirements for guards, stairs, landings, doors and other architectural features are now documented and aligned with UAE FLSC.
- Requirements of IACAD included.

Part C - Accessibility

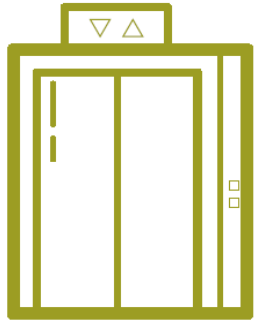


Accessibility requirements of the Dubai Universal Design Code applicable to building design are incorporated in this part and replace these aspects of the Dubai Universal Design Code.

New content includes:

- Recommendation for minimum number of adaptable accessible apartment units.
- Automatic doors for public buildings.
- Accessible hotel room percentage optimised to 2% or 1% for hotels with greater than 500 rooms.
- Toe and knee clearance and reach ranges.
- Criteria for curved ramps below 5% slope.
- Accessible kitchen design requirements.

Part D – Vertical transportation



Vertical transportation includes elevators, escalators and moving walks.

- DBC provides 2 methods to design vertical transportation:
  - Design method 1 is a tabulated approach for simpler buildings
  - Design method 2 is for use by vertical transportation consultants
- Designs shall comply with one of the referenced suite of standards either ASME or BS EN.

Part E – Building envelope



DBC has a dedicated Part E for building envelope design recognizing the importance of facades and roofs.

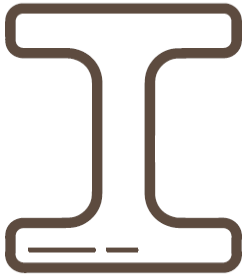
Most of the requirements are taken from existing regulations such as Al Safat, and UAE FLSC.

The part includes sections related to façade structure, energy conservation, sustainable materials, moisture control, etc.

New requirements include:

- Moisture control through different wall types.
- Percentage of maximum glazing based on building envelope orientation.
- Containment to provide redundancy for glass barriers.
- Minimum impact resistance values for facades depending on exposure.

Part F - Structure



This Part applies to the design and construction of buildings, and structures or appurtenances connected to a building. Villas and townhouses shall be designed in accordance with **Part K.**

- US codes and standards are adopted for the structure and BS EN for geotechnics.
- Wind and seismic loading have been optimized based on specific studies for Dubai, resulting in more sustainable construction.
- Loading requirements (e.g. wind and seismic) now align with ASCE 7-16.
- Concrete design requirements now align with ACI 318-19 - the minimum reinforcement densities will reduce.
- Robustness against disproportionate collapse is now in accordance with ASCE 7-16.
- Temporary retaining structures can now be optimised and designed as part of the permanent system. Permanent secant piles and diaphragm walls permitted.

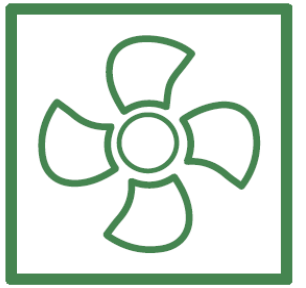
Part G – Incoming utilities



This Part includes electrical, LPG, water metering, district cooling and telecommunication design and/or installation requirements.

- Relevant DEWA electrical requirements are included.
- Electrical regulations in DBC have been updated to align with latest IET wring regulations (BS 7671).
- Recommendations for electric vehicle charging and typical arrangements.
- Cross reference to UAE FLSC for LPG.
- DEWA water metering.
- Common requirements of district cooling service providers.
- TRA requirements for Telecommunications and now includes reference to ISO standards.

Part H – Indoor environment



This part provides design requirements for HVAC systems, water supply, drainage, lighting, commissioning, fire safety, acoustics, and digital services enablement and ICT.

- HVAC systems design follows ASHRAE plus minimum requirements from Al Safat now in the DBC.
- Water supply and drainage requirements have been aligned to BS EN and new references provided to fill gaps.
- Part provides clarity on common mistakes made in fire safety systems design and lists a few exceptions to the current UAE FLSC accepted by DCD.
- Part provides minimum design requirements for acoustic comfort and reference to international standards.
- Part provides new recommendations for design of digital services enablement and ICT. The DBC does not mandate digital enablement.

Part J - Security



This Part is based on version 3.1 of the Preventative Systems Manual from SIRA and provides a summary of security and VSS requirements by building type. Part J shall be used in conjunction with the latest online version of the manual.

#	Building type	VSS required?	Control room required?	EACS required?	Alarm and IDS required?	HVM required?
1	Cinemas and theatres					
2	Recreation parks			a		b
3	Art galleries				c	
4	Shooting ranges	d				
5	Places of worship					
6	Financial and monetary institutions			e		
7	Internet services shops					
8	SIM card shops	f				
9	Staff and labour accommodation					
10	Important complexes (e.g. groups of towers, a villa compound etc)					
11	Hotels	g		h		
12	Department stores and supermarkets					
13	Shops selling precious goods			i	j	
14	Military and hunting equipment stores	d				
15	Vehicle rental facilities					
16	Warehouses					
17	Warehouses of hazardous and precious substances					
18	Self-storage					
19	Manufacture and sale of precious metals/stones					
20	Hazardous substances factories					
21	Robotic storage					
22	Shopping centres and malls	j				k
23	Motor fuel dispensing facilities					

Part K - Villas



This standalone Part details the requirements for the design of detached villas and townhouses of not more than three stories in height.

- Table of contents in Part K follows same order as main code Parts.
- Cross reference to other Parts only necessary if a villa contains a space or system that is not commonly used in villas e.g. elevators, underground parking.
- Villas and townhouses converted to retail, restaurant, clinics or other non-residential use shall conform to **Parts A** to **J**.
- HVAC - Outdoor air ducts connected to the return side of a fan coil unit or air handler plenum box shall be permitted as supply ventilation to the villa.
- Structure - Seismic loading shall comply with ASCE 7-16 (cl.11.1.2) but unlikely to govern the design of villas.
- Fire alarm systems shall be connected to DCD command control via Hassantuk.

FAQs

- **Where can I find the Dubai Building Code?**

  The code is available on the DDA website. Click here.

- **Is there an Arabic version of the Dubai Building Code?**

  An Arabic translation of the code is available and accessible from DDA website. However, the English version takes precedence over the Arabic translation. Click here.

- **Where can I find guidance on how to use the Dubai Building Code?**

  Part A – General provides a comprehensive overview on the DBC.

  Part A is considered an essential reading for all users of the code.

- **What is the Dubai Building Code applicable to?**

  The regulations stipulated in the DBC are the minimum requirements for building design. DBC applies to new buildings and changes to existing buildings as described in Table A.1.

- **Who can I contact in case of queries on the Dubai Building Code?**

  Click here for inquiry channels.

- **What are the topics covered in the Dubai Building Code?**

  The regulations stipulated in the DBC are the minimum requirements for building design in the areas indicated in the image.

